

REMARKS

INTRODUCTION

In accordance with the following, no claims have been canceled, amended, or added herein. Claims 1-23 are pending and under consideration. Claims 1, 13, 19, 22 and 23 are independent claims. Reconsideration is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 1-23 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,351,838 issued to Amelia in view of U.S. Patent No. 5,933,592 issued to Lubbers. The rejection is traversed and reconsideration is respectfully requested.

Independent claim 1 recites at least the following:

allocating virtual parity blocks to block planes related to the X, Y and Z-coordinates of the three-dimensional block matrix, respectively;

Amelia and Lubbers, taken separately or in combination, fail to suggest or disclose at least the above-recited features of independent claim 1. The current Office Action notes on the bottom of page 2 that Amelia does not discuss the above-recited features. However, the Office Action proposes to modify Amelia with Lubbers, and asserts that Lubbers discusses a “virtual set of user data blocks” and that “it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the procedure in Amelia by including therein virtual set of user data block means as taught by Lubbers.” Applicants respectfully disagree that Lubbers compensates for the deficiencies of Amelia for the following reasons.

Lubbers is directed to a RAID array. However, Lubbers fails to even mention “virtual parity blocks,” let alone all of the above-recited features. For example, as noted in the Office Action Lubbers states the following regarding the definition of the term “virtual set.”

“The RAIDset metadata provides information about the RAIDed or RAID protected user data blocks in the entire virtual set of user data blocks. It is not limited to each drive as was the device metadata described immediately above. **Virtual set refers to the user data blocks (but not the parity blocks)** distributed across the drives A-D in the RAID array” (col. 4, lines 8-12, emphasis added).

Thus, as described above, Lubbers expressly excludes parity blocks from the virtual set cited in the Office Action.

Moreover, the Office Action fails to specifically set forth any other portion of Lubbers that discusses the above-claimed features. If the above rejection is to be maintained, Applicants respectfully request the Examiner provide a specific paragraph number and figure reference for the above-recited features, or specifically indicate if an assertion of inherency is being relied upon.

Accordingly, Applicants respectfully submit that independent claim 1 patentably distinguishes over Amelia and Lubbers, and should be allowable for at least the above-mentioned reasons. Since similar features recited by each of the independent claims 13, 19, 22 and 23, with potentially differing scope and breadth, are not taught or disclosed by Amelia or Lubbers, the rejection should be withdrawn and claims 13, 19, 22 and 23 also allowed.

Further, Applicants respectfully submit that claims 2-12, 14-18, and 20-21, which variously depend from independent claims 1, 13, and 19, should be allowable for at least the same reasons as claims 1, 13, and 19, as well as for the additional features recited therein.

Dependent claim 5 recites at least the following:

storing data and parity information by the parity storing method according to claim 1; and

recovering a plurality of error blocks by using parity blocks corresponding to the virtual parity blocks related to the respective block planes with the error blocks of X, Y and Z-coordinates;

Amelia and Lubbers, taken separately or in combination, fail to suggest or disclose at least the above-recited features of dependent claim 5. The current Office Action on page 5 asserts that Amelia describes the above-recited features in FIG. 2 and related description. However, the Current Office Action separately notes on the bottom of page 2 that Amelia does not describe “the step whereby data allocation comprises allocating data as virtual data along with corresponding virtual blocks,” as recited at least in independent claim 1. Consequently, since claim 5 is dependent on claim 1 and incorporates all of the features of claim 1, Amelia cannot suggest or disclose at least the above-recited features of dependent claim 5.

Further, as Applicants asserted above, Lubbers fails to suggest or disclose “allocating virtual parity blocks to block plane” as recited at least in independent claim 1, and therefore Lubbers cannot describe all of the above-claimed features of dependent claim 5. Accordingly, Applicants respectfully submit that dependent claim 5 patentably distinguishes over Amelia and Lubbers, and should be allowable for at least the above-mentioned reasons. Claim 9, which depends from dependent claims 5, should be allowable for at least the same reasons as claim 5, as well as for the additional features recited therein.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot and that all pending claims patentably distinguish over the prior art. There being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

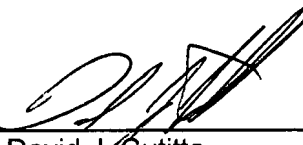
Respectfully submitted,

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